



**UNITED STATES DEPARTMENT OF COMMERCE**  
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
097581-565	06/15/00	HAHN	5138

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EXAMINER
BIDD, M

ART UNIT	PAPER NUMBER
2834	

DATE MAILED: 05/14/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.

581565

Applicant(s)

Hahn &amp; d

Examiner

M. Brd

Group Art Unit

2834

---The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address---

## Period of Response

A SHORTENED STATUTORY PERIOD FOR RESPONSE IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a response be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for response is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to respond within the set or extended period for response will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

## Status

- ☐ Responsive to communication(s) filed on \_\_\_\_\_.
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 1 1; 453 O.G. 213.

## Disposition of Claims

- ☒ Claim(s) 1-9 is/are pending in the application.
- Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 1-9 is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been received.
- ☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.
- ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

## Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_
- ☒ Notice of References Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other \_\_\_\_\_

Office Action Summary

Art Unit: 2834

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1 and 2 rejected under 35 U.S.C. 102(a) as being clearly anticipated by Long, Sekler or Persson.

Each reference teaches a piezo electric element with drive electrodes and a temperature-dependent resistive element coupled electrical to one electrode and located physically on an unelectroded portion of the piezoelectric element. Note especially, Long (fig. 12) Sekler (fig. 2, #16) and Persson (figs. 1 and 5)

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-6 rejected under 35 U.S.C. 103(a) as being unpatentable over Long, Persson or Sekler.

As noted above the references teach the mounting of a temperature-dependent element directly on a piezo electric resonator. They do not show some of the specific architecture of the electrodes and leads (e.g. noses and points). However, they clearly provide the necessary

Art Unit: 2834

electrical and physical connections. Thus the changes in ornamental shape do not serve any different function than the prior art structures and are not seen as patentably distinct.

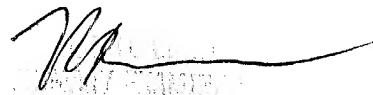
Claims 7-9 rejected under 35 U.S.C. 103(a) as being unpatentable over Long, Sekler or Persson in view of Ice, Newell or Brenig.

Each of Long, Sekler and Persson teach the resonator device except the temperature-dependent element is not a PTC or NTC resistor. However, each of Ice, Newell and Brenig teach that such temperature variable resistors are commonly used with piezo electric resonators to achieve a temperature stable circuit. Thus it would have been obvious to one of ordinary skill in the art to use such a resistor in the on-board circuitry of Long, Persson or Sekler. Conversely, it would have been obvious to one of ordinary skill in the art to house the temperature compensation circuitry of Newell, Ice or Brenig on the piezo element itself to save space and place both resonator and circuitry in the same thermal environment.

Further cited are Isayama and O'Brien (circuitry mounted on a piezo element); and Marcellus (electrode noses: fig. 2).

Budd/tr

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